Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER– II(New course) • EXAMINATION (Remedial) – WINTER- 2015

Subject Code: 2722015 **Date: 14/12/2015**

Subject Name: Advances in concrete technology and sustainable construction practices

Time:2:30 pm to 5:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain the concept of sustainable development of concrete technology. Explain in brief the recent advances in concrete technology.	**07**
	(b)	Write in short on the effect of rice husk ash on concrete. Explain the physical and chemical properties will effect on concrete.	**07**
Q.2	**(a)**	What are the workability test on self-compacting concrete as per FENARC guidelines? Explain any one of them in detail.	**07**
	(b)	Differentiate on high performance concrete and high strength concrete with its applicability and use.	**07**
		OR	
	(b)	Elaborate on curing compounds and their effects on properties of concrete.	**07**
Q.3	**(a)**	Write in short ñGeo polymer concreteò.	**07**
	(b)	Explain the procedure of health assessment of concrete.	**07**
		OR	
Q.3	**(a)**	Write in short ñReactor Powder Concreteò.	**07**
	(b)	Explain on roller compacted concrete.	**07**
Q.4	**(a)**	How the epoxy resin works for rehabilitation work? Explain with it uses.	**07**
	(b)	Elaborate on procedure of damage assessment of structure.	**07**
		OR	
Q.4	**(a)**	What are the causes of deterioration of concrete? Elaborate on the preventive measures of it.	**07**
	(b)	How GGBS is affected on the concrete? Explain it advantages and disadvantages with its applications.	**07**
Q.5	**(a)**	Enlist the types of admixtures with its specific uses with practical application.	**07**
	(b)	How the light weight concrete is achieved? Explain its use with practical significance.	**07**
		OR	
Q.5	**(a)**	Explain the procedure to achieve the recycled aggregate. What are the basic tests must perform on these aggregates? Also write in brief about the effect of these aggregates on structure.	**07**
	(b)	Write in short on ñFerro cement concreteò.	**07**

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